

# CALIFORNIA STATE DEPARTMENT OF PUBLIC HEALTH

WALTER M. DICKIE, M.D., Director

## Weekly Bulletin



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GUY P. JONES  
EDITOR

## Disinfection and Fumigation

Disinfection and fumigation constitutes entirely different procedures which are used for entirely different purposes. Most people think of disinfection and fumigation as being identical or at least similar. Generally speaking, fumigation is designed to destroy insects while disinfection is employed in the destruction of bacteria.

The first public health officer who recognized the inefficiency of fumigation in the destruction of harmful bacteria was Dr. Charles V. Chapin, Superintendent of Public Health at Providence, Rhode Island. To this veteran official public health in the United States is indebted for many advances in the administration of public health, one of which is the removal of the unnecessary procedure of terminal fumigation following a communicable disease.

By no means should it be considered that fumigation is an unnecessary procedure altogether. It is most valuable in cleaning up premises that may be infested with insects, but it is of little, if any, value whatsoever in the destruction of agents that may cause infection.

Disinfection deals with the process of destroying the vitality of those minute organisms which may cause disease. In nature there are many forces that are destructive of such agents. Among them are sunlight, dryness, dilution and time. Perhaps the greatest destroyer of germ life is sunlight. Very few organisms can live in direct sunlight for many hours.

Dryness is another factor of great importance in the destruction of such organisms. The combination of the two, together with simple cleanliness, constitute the most important attributes in the destruction of bacteria. The old idea that disease organisms are wafted about upon playful breezes is entirely dispelled. It is known that most of the bacteria harmful to man have their sources in man himself and after leaving their host, unless they find favorable conditions for propagation and development, are short lived. For this reason terminal disinfection, which means disinfection after a case of communicable disease has been released from quarantine, has come to be regarded as of much less importance than concurrent disinfection, which means destruction of organisms immediately upon their discharge from their human host. Since man is the source of the infections to which he is heir, the best place to apply disinfection is at the source. Excretions from the nose, mouth and bowels, as well as discharges from wounds and eruptions upon the body surface need immediate attention. When such procedure is followed there is little need for disinfecting the sick room when the illness has terminated.

#### FUMIGATION

Fumigation consists of liberating fumes or gasses for the purpose of destroying vermin, insects and small animals which may act as carriers of infection.



Fumigation, also, to a very limited extent may destroy bacteria organisms. The gasses that are employed in fumigation are very often destructive to human life and extreme care is used in their employment. Fumigation never under any circumstances takes the place of disinfection. Gasses always are most efficient in action upon surfaces, lacking power of penetration, and they can not be depended upon to penetrate fabrics or surfaces which may be absorbed in sputum or other discharges in which the disease organisms may be lodged.

In discussing the ideal disinfectant, Dr. M. J. Rosenau in his "Preventive Medicine and Hygiene" states: "The ideal disinfectant must, first and foremost, possess high germicidal power. It must not be rendered ineffective by the presence of organic matter; it must be reasonably stable so as not to deteriorate under ordinary conditions; it must be soluble or readily miscible in water; if it forms an emulsion the emulsion should be permanent; it should be harmless to man and the higher animals; it should have the power of penetration; it should not corrode metals, bleach pigment, rot fabric or stain surfaces; and, finally, it should be reasonable in price." He adds further that it requires money and the expenditure of well directed and intelligent energy to accomplish satisfactory disinfection and that no one germicide is applicable to all diseases or to all substances or even to the same disease or the same substance under different conditions.

It will be seen that disinfection requires skill and knowledge and that in order to destroy disease organisms that may be associated with a case of illness the services of an individual who is a skilled disinfectant are required. Merely to burn sulphur or other agents in a sick room following a case of illness is comparable to "burning incense to the unknown gods."

The general public is often misinformed upon the difference between fumigation and disinfection and health officers are frequently asked for advice upon proper methods of fumigation, when as a matter of fact disinfection is called for and not fumigation. It should be understood that both of the procedures are important in public health administration and neither should be neglected or abandoned. Each has a definite place among those procedures that have to do with the protection of the public health. The problem lies in giving proper information to the average individual so that he may easily understand the difference and the distinction.

Learning stops only when ambition halts.—U. C. Extension Division.

### S. C. P. H. A. HOLDS SUCCESSFUL MEETING

The Southern California Public Health Association held its regular spring meeting May 28, 1936, in the chemistry auditorium of the University of California at Los Angeles. There was a large attendance, members of the association coming from all sections of southern California. The program, which was particularly interesting, was arranged by Dr. T. D. Beckwith, head of the department of bacteriology of the university.

In his paper entitled "The Endocrine Glands and Public Health" Dr. Bennet M. Allen called attention to recent progress in the field of endocrinology and the relation of iodine deficiency to the goitre problem.

In discussing "An Improved Method for Studying Gaseous Metabolism of Microorganisms" S. E. Donovan of the department of bacteriology, described his apparatus which makes possible the measurement of the oxygen consumption and carbon dioxide production of a single yeast cell.

Dr. G. H. Ball reported the implantation of human chilomastix into the intestinal tract of young chicks. He also told of his interest in the incidence of intestinal protozoa and of the surveys which are in progress in his laboratory.

Dr. T. D. Beckwith described a spore-forming organism, the classification of which is still pending, found in a relatively high percentage of market milk samples. He also discussed the germicidal efficiency of chlorine-containing solutions.

Dr. O. A. Plunkett, in considering "Medical Mycology in Relation to Public Health," emphasized the value of coordinating the work of the mycologist and the pathologist in investigation of fungus diseases. Differences in the classification of parasitic fungi were illustrated.

"The Role of Vitamin C Deficiency in Tuberculosis of the Guinea Pig," presented by Dr. M. R. Green, was a progress report of observations which may prove of importance in the management of tuberculous infections.

Dr. M. S. Dunn and L. E. Detrick and their staff presented demonstrations relating to the chemistry of vitamin C and the amino acids. A method of determining an individual's vitamin C balance by a determination of the amount of the C factor in a urine specimen and the effect of vitamin C on muscle function were included in these demonstrations.

Dr. R. V. Stone of the Los Angeles County health department is the president of the Southern California Public Health Association and Charles W. Arthur of the Pasadena city health department is secretary.



## A COURSE IN PUBLIC HEALTH AND NURSING EDUCATION

Courses in Public Health and Nursing Education will be given at the University of California at Los Angeles beginning Monday, June 29. These courses form part of the regular summer session of the University and they are open to any person over 21 years of age upon payment of the nominal tuition fees. Following is an outline of the courses and instructors:

Richard Arthur Bolt, M.D., Dr. P. H., Director of Cleveland Child Health Association.

Shirley Titus, M.A., Dean, School of Nursing, Vanderbilt University, Tennessee.

Elnora E. Thomson, R.N., Professor of Nursing and Director of Nursing Education, University of Oregon.

Helen D. Halvorsen, R.N., A.B., formerly Associate in Public Health Nursing.

Elementary Epidemiology (Bolt).

Vital Statistics (Bolt).

Principles and Practices of Public Health Nursing (Halvorsen).

Principles of Supervision in Public Health Nursing (Thomson).

Administration of Schools of Nursing (Titus).

Principles of Nursing Education (Titus).

Social Case Work (Sociology 188).

Essentials of Nutrition (Home Economics S32).

Relation of Diet to Treatment of Disease (Home Economics 120B).

Administration of School Health Program (Education 151).

## A COURSE IN PARASITOLOGY

The University of California Extension Division at Los Angeles announces a course in parasitology and mycology which will be of special value to laboratory technicians. The course will be given by Dr. John F. Kessel, beginning July 7, the classes meeting on Tuesday and Thursday of each week. The hours are from 6.30 to 10 p.m. and the work consists of 15 hours of lectures and 45 of laboratory practice. All sessions will be held at the Los Angeles General Hospital. The hours at which the courses are scheduled will enable employed individuals to attend.

Nothing in human experience outranks learning. By it alone man rises above dumb creatures. If, therefore, we have received nothing else so good as the mind, what should be more worth cultivating? No quest of gold or worldly power has in the long run ever brought like gratification. No other adventure is to be compared with it. Through it civilization and all man's higher achievements have been won.—U. C. Extension Division.

## DISEASES REPORTABLE IN CALIFORNIA

### REPORTABLE ONLY

ANTHRAX  
BERIBERI  
BOTULISM  
COCCIDIOIDAL GRANULOMA  
DENGUE\*  
FLUKE INFECTION  
FOOD POISONING  
GLANDERS\*\*\*  
HOOKWORM  
JAUNDICE (Infectious)

MALARIA\*  
PELLAGRA  
PNEUMONIA (Lobar)  
RELAPSING FEVER  
ROCKY MOUNTAIN  
SPOTTED FEVER  
SEPTIC SORE THROAT  
TETANUS  
TRICHINOSIS  
TULAREMIA  
UNDULANT FEVER

### ISOLATION OF PATIENT

CHICKENPOX\*\*  
DYSENTERY (Amoebic)  
DYSENTERY (Bacillary)  
ERYSIPELAS  
GERMAN MEASLES\*\*  
GONOCOCCUS INFECTION  
INFLUENZA  
MEASLES\*\*  
MUMPS\*\*

OPHTHALMIA NEONATORUM  
PSITTACOSIS  
RABIES (Animal)\*\*  
RABIES (Human)  
SYPHILIS  
TRACHOMA  
TUBERCULOSIS  
WHOOPING COUGH\*\*

### QUARANTINABLE

CHOLERA\*\*\*  
DIPHTHERIA  
ENCEPHALITIS (Epidemic)  
LEPROSY  
MENINGITIS (Epidemic)  
PLAGUE\*\*\*  
ACUTE ANTERIOR  
POLIOMYELITIS

SCARLET FEVER  
SMALLPOX  
TYPHOID AND PARATYPHOID FEVER  
TYPHUS FEVER  
YELLOW FEVER\*\*\*

\* Patients should be kept in mosquito-free room.

\*\* Nonimmune contacts isolated also.

\*\*\* Cases to be reported to State Department of Public Health by telephone or telegraph and special instructions will be issued.

Another quaint custom is passing away: College graduates are becoming less prone to frame their diplomas and hang them on walls for callers to admire. So vanishes one more of our whimsies that used to divert cultivated European travelers, like Spencer and Dickens. Decorating offices and parlors in that way was linked with the notion that to be graduated was to have finished one's education.—U. C. Extension Division.

The joy of creation is so exalted that it has been called divine. Next to it is the joy of coming to know what has been wrought and thought by the most highly endowed members of the race. Through them and their achievements we discern powers and qualities latent within ourselves. The more we understand, the more we appreciate and the richer life becomes.—U. C. Extension Division.

Don't eat fruit that has not been washed.

Dr. Charles H. Mayo said: "The public knows less of medicine than of any other science."



## MORBIDITY

Complete Reports for Following Diseases for Week Ending  
June 6, 1936

## Chickenpox

428 cases: Alameda County 3, Alameda 4, Berkeley 1, Oakland 53, Butte County 5, Colusa County 2, Concord 1, Martinez 8, Richmond 1, Fresno County 3, Fresno 12, Imperial County 1, Kings County 2, Hanford 10, Los Angeles County 25, Alhambra 1, Beverly Hills 1, Burbank 3, Culver City 1, Glendale 1, Huntington Park 1, Long Beach 12, Los Angeles 38, Pomona 1, San Fernando 1, Santa Monica 2, South Pasadena 1, Torrance 1, Lynwood 1, South Gate 5, Bell 1, San Anselmo 1, Monterey County 1, Monterey 1, Orange County 20, Anaheim 3, Fullerton 4, Santa Ana 5, Tustin 1, Colfax 10, Riverside County 4, Riverside 1, Sacramento County 17, Sacramento 9, San Bernardino 1, San Diego 17, San Francisco 34, San Joaquin County 2, Stockton 15, San Luis Obispo County 1, Paso Robles 3, San Luis Obispo 2, San Mateo County 2, Daly City 1, Redwood City 3, San Mateo 1, Menlo Park 1, Santa Barbara County 4, Lompoc 10, Santa Barbara 3, Santa Clara County 4, Palo Alto 13, San Jose 3, Watsonville 3, Fairfield 7, Tulare County 11, Dinuba 1, Lindsay 1, Porterville 2, Ventura County 4.

## Diphtheria

45 cases: Oakland 4, Colusa County 1, Kern County 1, Los Angeles County 2, Inglewood 1, Los Angeles 11, Pomona 1, Whittier 1, Bell 1, Mendocino County 1, Anaheim 7, Sacramento 1, San Diego 1, Stockton 1, San Mateo County 2, Santa Clara County 1, Palo Alto 2, San Jose 6.

## German Measles

208 cases: Alameda County 1, Alameda 4, Berkeley 32, Hayward 1, Oakland 32, San Leandro 2, Butte County 1, Contra Costa County 6, Martinez 1, Fresno County 1, Kern County 1, Lassen County 2, Los Angeles County 12, Long Beach 10, Los Angeles 6, Signal Hill 1, Marin County 1, San Anselmo 1, Merced County 1, Napa County 1, Orange County 1, Fullerton 2, Santa Ana 3, Tustin 1, Riverside County 1, Riverside 12, Sacramento 1, Ontario 3, San Diego 6, San Francisco 24, Stockton 18, San Luis Obispo County 5, Paso Robles 1, San Luis Obispo 2, San Mateo County 2, Redwood City 3, Menlo Park 2, Santa Barbara County 2, San Jose 1, Turlock 1.

## Influenza

621 cases: Kern County 25, Los Angeles County 2, Los Angeles 13, Merced County 5, Nevada City 19, Placer County 58, Colfax 8, Sacramento 133, San Joaquin County 1, Stockton 1, San Luis Obispo 1, Los Gatos 1, Fairfield 8, Tulare County 346.

## Measles

1584 cases: Alameda 7, Berkeley 23, Emeryville 2, Livermore 3, Oakland 81, Pleasanton 3, San Leandro 6, Colusa County 2, Contra Costa County 2, Martinez 12, Pinole 3, Pittsburg 14, Fresno County 3, Fresno 9, Kern County 138, Bakersfield 2, Hanford 1, Lake County 2, Lassen County 1, Los Angeles County 113, Alhambra 9, Arcadia 6, Avalon 1, Azusa 14, Beverly Hills 14, Burbank 8, Claremont 1, Compton 10, Culver City 2, Glendale 32, Glendora 1, Hermosa 1, Huntington Park 9, Inglewood 1, Long Beach 14, Los Angeles 130, Monrovia 7, Montebello 1, Pasadena 32, Pomona 12, Redondo 2, San Fernando 11, San Gabriel 7, San Marino 2, Santa Monica 1, Sierra Madre 1, South Pasadena 8, Whittier 3, Torrance 7, Lynwood 9, South Gate 8, Monterey Park 10, Gardena 1, Madera County 1, Marin County 5, Mill Valley 28, San Anselmo 46, San Rafael 12, Yosemite National Park 1, Mendocino County 1, Merced County 14, Monterey County 8, King City 2, Orange County 53, Fullerton 1, Santa Ana 2, La Habra 1, Laguna Beach 5, Tustin 8, Colfax 3, Riverside County 15, Corona 4, Riverside 39, Sacramento County 21, Sacramento 2, San Bernardino County 5, Colton 10, Ontario 21, Redlands 13, San Bernardino 2, Chula Vista 11, San Diego 30, San Francisco 118, San Luis Obispo County 2, San Luis Obispo 30, San Mateo County 7, Burlingame 7, Daly City 3, Redwood City 4, San Mateo 4, South San Francisco 1, San Carlos 1, Santa Barbara County 8, Santa Barbara 1, Santa Maria 6, Santa Clara County 16, Morgan Hill 10, San Jose 5, Watsonville 1, Siskiyou County 2, Dunsmuir 4, Fairfield 5, Suisun 20, Vallejo 4, Petaluma 1, Stanislaus County 32, Sutter County 40, Yuba City 42, Red Bluff 8, Tulare County 30, Ventura County 4, Oxnard 1, Santa Paula 1.

## Mumps

726 cases: Berkeley 2, Oakland 21, Butte County 4, Colusa County 2, Contra Costa County 16, Pinole 2, El Dorado County 2, Fresno County 28, Fresno 21, Kern County 6, Taft 1, Kings County 1, Los Angeles County 27, Alhambra 11, Beverly Hills 33, Burbank 1, Compton 5, Culver City 2, Glendale 2, Huntington Park 3, Long Beach 42, Los Angeles 50, Montebello 1, Pasadena 5, Pomona 15, San Gabriel 1, Santa Monica 2, Whittier 13, Torrance 1, Lynwood 2, South Gate 1, Monterey Park 15, Merced 2, Orange County 9, Brea 2, Fullerton 2, Orange 1, Santa Ana 6, Seal Beach 1, Colfax 2, Riverside County 10, Corona 1, Riverside 37, Sacramento County 9, Sacramento 49, San Bernardino County 2, Colton 1, Ontario 1, San Bernardino 3, Chula Vista 1, San Diego 40, San Francisco 3, Stockton 2, Santa Barbara 6, Santa Clara County 5, San Jose 6, Santa Cruz County 1, Watsonville 5, Fairfield 39, Suisun 4, Vallejo 1, Stanislaus County 2, Oakdale 1, Tulare County 97, Ventura County 10, Santa Paula 2, Yolo County 1, Woodland 1, Yuba County 23.

## Pneumonia (Lobar)

42 cases: Alameda County 1, Oakland 1, Contra Costa County 1, Kern County 2, Burbank 1, Los Angeles 16, Pacific Grove 2, Placer County 1, Colfax 1, Riverside 1, Sacramento 3, San Francisco 4, San Joaquin County 1, Manteca 1, Stockton 3, Palo Alto 1, Tulare County 1, Ventura County 1.

## Scarlet Fever

312 cases: Alameda County 1, Berkeley 6, Oakland 7, Butte County 1, Colusa 5, El Dorado County 1, Fresno County 5, Fresno 6, Sanger 1, Glenn County 3, Humboldt County 4, Imperial County 1, Kern County 5, Bakersfield 1, Los Angeles County 16, Avalon 1, Beverly Hills 1, Burbank 2, Culver City 1, El Monte 1, Glendale 2, Inglewood 1, Long Beach 8, Los Angeles 24, Pasadena 3, Pomona 2, Redondo 1, Santa Monica 1, Torrance 2, Lynwood 1, Hawthorne 1, Mill Valley 8, Mendocino County 1, Ukiah 4, Merced County 3, Alturas 1, Monterey County 1, Orange County 1, Santa Ana 3, Placentia 1, Auburn 2, Riverside County 3, Corona 3, Riverside 3, Sacramento County 9, Sacramento 18, San Bernardino County 2, Colton 1, San Diego 6, San Francisco 77, San Joaquin County 3, Stockton 3, San Luis Obispo County 1, Paso Robles 1, San Mateo County 1, Burlingame 3, Daly City 3, Redwood City 1, San Carlos 1, Santa Barbara 3, Santa Clara County 1, Palo Alto 1, San Jose 7, Santa Cruz County 1, Santa Cruz 1, Fairfield 3, Vallejo 1, Petaluma 1, Sutter County 1, Tulare County 5, Lindsay 1, Tuolumne County 1, Ventura County 2, Fillmore 1, Santa Paula 1, Yuba County 1, California 1.\*

## Smallpox

3 cases: Porterville 2, California 1.\*

## Typhoid Fever

14 cases: Butte County 1, Pittsburg 1, Los Angeles County 2, Long Beach 1, Los Angeles 1, Riverside County 2, Sacramento County 1, Watsonville 1, Tulare County 3, Dinuba 1.

## Whooping Cough

454 cases: Alameda County 3, Alameda 6, Berkeley 27, Oakland 12, San Leandro 6, Contra Costa County 2, Concord 1, Richmond 3, Fresno County 8, Kern County 8, Los Angeles County 21, Beverly Hills 11, Compton 2, Huntington Park 5, Long Beach 20, Los Angeles 78, Montebello 1, Pasadena 4, Pomona 11, San Gabriel 3, Santa Monica 3, Whittier 1, South Gate 3, Bell 1, Marin County 1, Mill Valley 7, Merced 3, Monterey County 2, King City 6, Orange County 6, Anaheim 2, Fullerton 2, Santa Ana 2, Seal Beach 5, Corona 1, Riverside 6, Sacramento County 15, Sacramento 35, San Bernardino County 1, Ontario 1, San Bernardino 1, Coronado 1, San Diego 56, San Francisco 5, San Joaquin County 1, Stockton 15, San Luis Obispo 4, Daly City 1, Santa Barbara 1, Gilroy 1, Los Gatos 1, Morgan Hill 2, San Jose 4, Santa Cruz 17, Watsonville 1, Turlock 2, Ventura County 1, Fillmore 4, Oxnard 1.

## Meningitis (Epidemic)

2 cases: Long Beach 1, California 1.\*

## Dysentery (Bacillary)

5 cases: Los Angeles 4, Tulare County 1.

## Poliomyelitis

3 cases: San Marino 1, Sacramento County 1, Tulare County 1.

## Trachoma

3 cases: Long Beach 1, Huntington Beach 1, California 1.\*

## Beriberi

One case: San Francisco.

## Paratyphoid Fever

One case: San Diego.

## Undulant Fever

4 cases: Kern County 1, Pomona 2, La Habra 1.

## Coccidioid Granuloma

2 cases: Kern County 1, Kings County 1.

## Septic Sore Throat (Epidemic)

4 cases: San Francisco 2, San Mateo County 1, Dunsmuir 1.

## Rabies (Animal)

20 cases: Albany 1, Los Angeles County 6, Inglewood 1, Los Angeles 8, Montebello 1, Lynwood 1, Bell 1, Visalia 1.

\* Cases charged to "California" represent patients ill before entering the state or those who contracted their illness traveling about the state throughout the incubation period of the disease. These cases are not chargeable to any one locality.